Mail Stop: SEQUENCE
PATENT
3501-1097

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Timo PULLI et al.	Conf. 5730
Application No. 10/535,260	Group 1641
Filed May 18, 2005	Examiner Lisa Cook

NON-COMPETITIVE IMMUNOASSAY FOR SMALL ANALYTES

RESPONSE TO NOTICE TO COMPLY WITH SEQUENCE RULES PURSUANT TO 37 C.F.R. § 1.821-1.825

Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 8, 2009

Sir:

In response the Notice to Comply with Requirements for Patent Applications Containing Nucleotide and/or Amino Acid Sequence Disclosures dated December 9, 2008, Applicants herein provide the following amendments and remarks.

Amendments to the Specification begin on page 2 of this paper.

Remarks begin on page 4 of this paper.

An **Appendix** is attached following the signature page of this paper.

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph on page 12, lines 9-26, with the following rewritten paragraph:

-- Individual clones were picked and miniprep DNA was extracted with the QIAprep Spin Miniprep Kit (QIAGEN Inc., Germany). According to sequencing of the minipreps, two different Fab clones were found. These clones were named M1 and M2. The amino acid sequences of the M1 Fab fragment were SEQ ID NO 1 (light chain) and SEQ ID NO 2 (heavy chain). Amino acids no. 3 to 108 (SEQ ID NO 6) represent the variable region and no. 109 to 215 (SEQ ID NO 7) the constant region of the M1 light chain (SEQ ID NO 1). Amino acids no 4 to 123 (SEQ ID NO 8) represent the variable region and no. 124 to 226 (SEQ ID NO 9) the constant region of the M1 heavy chain (SEQ ID NO 2). The amino acid sequences of M2 Fab fragment were SEQ ID NO 3 (light chain) and the SEQ ID NO 4 (heavy chain). Amino acids no. 3 to 108 (SEQ ID NO 10) represent the variable region and no. 109 to 215 (SEQ ID NO 11) the constant region of the M2 light chain (SEQ ID NO 3). Amino acids no. 4 to 123 (SEQ ID NO 12) represent the variable region and no. 124 to 226 (SEQ ID NO 13) the constant region of the M2 heavy chain (SEQ ID NO 4). The rest of the amino acids derive fro the cloning technique, and some of the C-terminal amino acids facilitate the isolation and purification of the protein. Small-scale (3ml) Fab expression cultures were also made. Periplasmic fraction

of the cells was isolated by freezing and thawing the cells for three times in PBS. --

Please replace the paragraph on page 14, line 30 to page 15, line 2 with the following rewritten paragraph:

-- Individual phage clones were picked and they were sequenced. All of the clones had the same sequence (SEQ ID NO 5). The amino acid sequence of anti-M1+morphine immune complex scFv fragment was named K11 scFv. Amino acids no. 3 to 120 (SEQ ID NO 14) represent the heavy chain variable region, no. 140 to 246 (SEQ ID NO 16) represent the light chain variable region, and no. 121 to 139 (SEQ ID NO 15) represent the linker of K11 scFv (SEQ ID NO 5). The rest of the amino acids derive from the cloning technique, and some of the C-terminal amino acids facilitate the isolation and purification of the protein. --

In the Sequence Listing:

Please replace the Sequence Listing of record with the attached substitute Sequence listing (in paper and computer readable form (CRF)).

REMARKS

The foregoing amendments are presented to place the application in compliance with the Sequence Rules under 37 C.F.R. §§ 1.821-1.825.

Enclosed herewith is a substitute Sequence Listing in both paper and computer readable form (CRF) as required by 37 C.F.R. § 1.821(c) and (e). The substitute Sequence Listing corrects the errors noted in the Notice to Comply dated December 9, 2008. The Sequence Listing was also revised to update the current application information per US practice. The specification has also been amended to insert the attached paper copy and CRF of the Sequence Listing and/or to replace the Sequence Listing of record. In particular, SEQ ID NOS. 6-13 have been inserted in the paragraph on page 12, lines 9-26 of the specification to correspond to each fragment of the SEQ ID NOS. 1-4. SEQ ID NOS. 14-16 have also been inserted in the paragraph on page 14, line 30 to page 15, line 2 of the specification to correspond to fragments of the SEQ ID NO. 5. Support for such can be found in the sequences of the originally filed application. No new matter has been added. Accordingly, the submission complies with 37 C.F.R. § 1.821(g).

The content of the paper and computer readable copies of the Sequence Listing are the same, and thus this submission complies with 37 C.F.R. § 1.821(c) and (e).

The attached Sequence Listing was run through the USPTO Checker software (Version 4.4.0) (October 25, 2005) and no errors were found.

In view of the foregoing, it is believed that each requirement set forth in the Notice has been satisfied, and that the application is now in compliance with the Sequence Rules under 37 C.F.R. §§ 1.821-1.825.

Favorable action on the merits is respectfully requested.

Respectfully submitted,

YOUNG & THOMPSON

/Jay F. Williams/

Jay F. Williams, Reg. No. 48,036
209 Madison Street
Suite 500
Alexandria, VA 22314
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

JFW/ml

APPENDIX:

The Appendix includes the following item(s):

☒ - Sequence Listing in paper and computer readable form